

WHAT IS CLAIMED IS:

1. A boosting circuit, comprising:

an input circuit part for outputting a differential current proportional to differentiations of input voltages;

a bias circuit part for mirroring the differential current, inverting the differential current, and producing an inverted differential current; and

an output circuit part for adjusting each magnitude of the differential current and the inverted differential current based on a predetermined ratio size of MOS transistors of the output circuit part, to output an adjusted differential current and an adjusted inverted differential current, adding the adjusted differential current and the adjusted inverted differential current, and producing an output current in a push-pull form.

2. The boosting circuit as claimed in claim 1, wherein the input circuit part includes:

a first differentiation circuit for being inputted with a reference voltage and a first input voltage of the input voltages, and outputting a first differential current;

a second differentiation circuit for being inputted with the reference voltage and a second input voltage of the input voltages, and outputting a second differential current; and

a current mirror circuit for mirroring the first and second differential currents.

3. The boosting circuit as claimed in claim 2, wherein the first and second differentiation circuits each has respective fully differential operational amplifier, capacitors, and resistors.

4. The boosting circuit as claimed in claim 3, wherein the fully differential operational amplifier has input terminals formed with NPN bipolar transistors in a left to right symmetry.

5. The boosting circuit as claimed in claim 2, wherein the bias circuit part mirrors the first differential current and produces a first inverted differential current wherein the first differential current is inverted, and mirrors the second differential current and produces a second inverted differential current wherein the second differential current is inverted.

6. The boosting circuit as claimed in claim 5, wherein the output circuit part includes:

a first output part for adjusting each magnitude of the first differential current and the second inverted differential current based on the predetermined size ratio of a first MOS transistor and adding the adjusted magnitudes of the first differential current and the second inverted differential current, thereby outputting a first output current; and

a second output part for adjusting each magnitude of the second differential current and the first inverted differential current based on the predetermined size ratio of a second MOS transistor and adding the adjusted

magnitudes of the second differential current and the first inverting differential current, thereby outputting a second output current, and the output current being produced by adding the first and second output currents.